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NEW SPECIES OF THE GENUS *SYSTOLE* (HYMENOPTERA, EURYTOMIDAE) FROM TURKEY

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New Species of the Genus *Systole* (Hymenoptera, Eurytomidae) from Turkey. Zerova M. D., Seryogina L. Ya., H. Çam. — Description of two new *Systole* species is given, as well as description of *S. brunnicornis* Zerova et Çam, described only from female. The both described species belong to subgenus *Systole* (*Systole*). *Systole tokata* Zerova et Çam, sp. n. (type locality: Turkey, Tokat) differs from all known species of this subgenus by longer petiolus in female and squar 2–5 flagellar segments. *Systole plana* Zerova et Çam, sp. n. (type locality: Turkey, Tokat) is near to *S. singularis* Zerova but differs by flat abdomen and longer and stout first flagellar segment.

Key words: Hymenoptera, Eurytomidae, Turkey, new taxa.

Новые виды рода *Systole* (Hymenoptera, Eurytomidae) из Турции. Зерова М. Д., Серегина Л. Я., Х. Чам. — Приведено описание двух новых для науки видов рода *Systole*, а также описание самца *S. brunnicornis* Zerova et Çam, описанного раннее по самке. Оба описываемых вида относятся к подроду *Systole* (*Systole*). *Systole tokata* Zerova et Çam, sp. n. (типовая местность: Турция, Токат) отличается от всех известных видов данного подрода длинным стебельком у самки и массивными, квадратной формы, 2–5 члениками жгутика. *Systole plana* Zerova et Çam, sp. n. (типовая местность: Турция, Токат) близка к виду *S. singularis* Zerova, но обличается дорсально уплощенным брюшком самки и крупным и широким в дистальной части первым члеником жгутика.

Ключевые слова: Hymenoptera, Eurytomidae, Турция, новые таксоны.

Two new species of the genus *Systole* were found in materials collected by Dr. Halif Çam in Turkey. The holotypes and paratypes of new species are deposited in the collection of Schmalhausen Institute of Zoology Ukrainian National Academy of Sciences (Kyiv). The article includes also the description of male *Systole* (*Systole*) *brunnicornis* Zerova et Çam, 2003, because the description of this species was based on female.

Systole* (*Systole*) *tokata Zerova et Çam, **sp. n.**

Material. Holotype ♀, Turkey, Tokat, 7.06.1992 (H. Çam).

Female (holotype) (fig. 1, *1–5*). Length 1,7 mm. Small species with big head and long petiolus of female abdomen. Head and thorax (dorsal part) with very fine shining reticulation and sparse white pubescens.

Color: predominantly black species. Head, mesosoma and metasoma black, all coxae black, femora black, hind and mid tibiae brownish-black, fore tibiae brown, tarsi brown; antennae including scape black, fore wing venation dark brown; tip of ovipositor black.

Head from above stout, much wider than pronotal collar, about 3 times wider than long, POL to OOL as 1,1 : 0,6; temples shorter than length of eye as 6 : 8. Head in

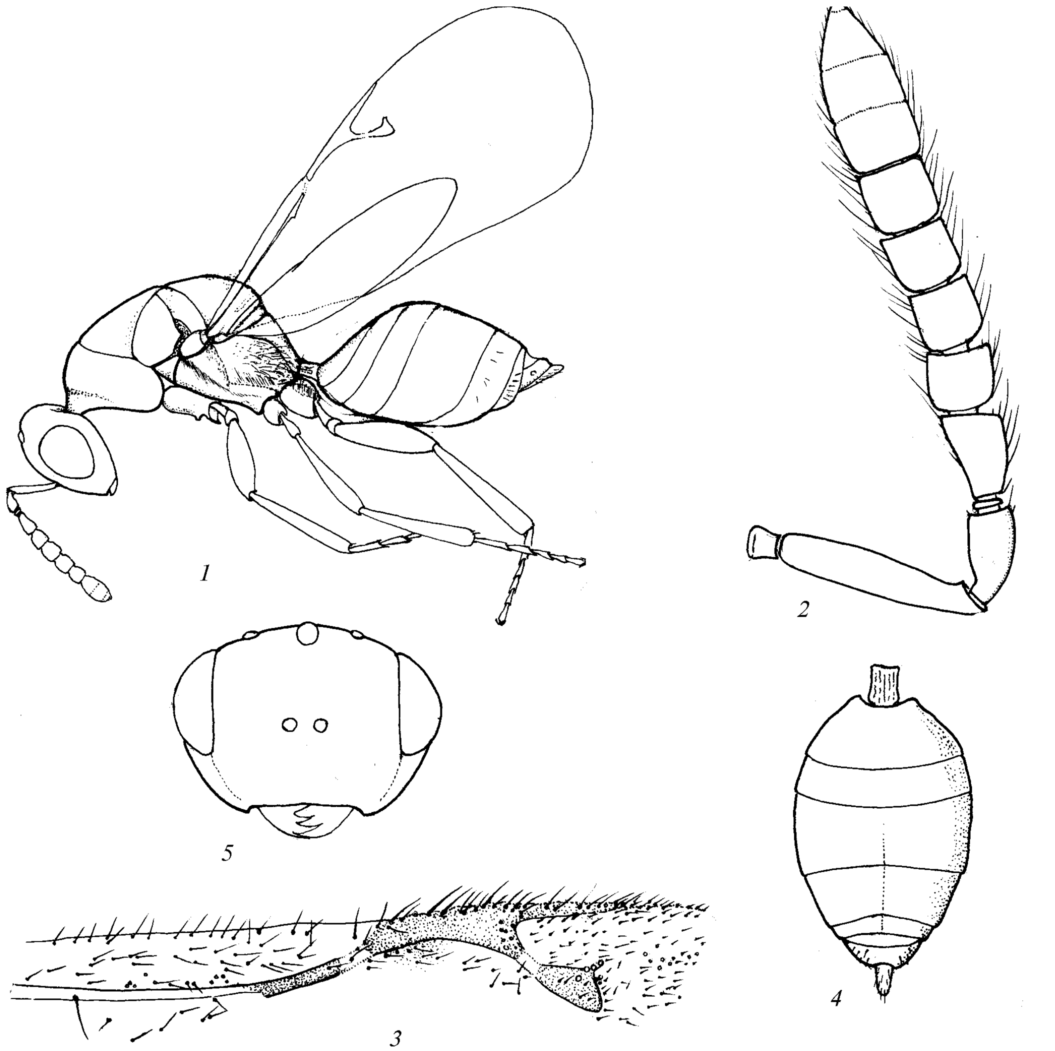


Fig. 1. *Systole* (*Systole*) *tokata*: *1* — female, profile; *2* — antenna, female; *3* — forewing venation; *4* — metasoma, female; *5* — head, frontal view.

Рис. 1. *Systole* (*Systole*) *tokata*: *1* — профиль самки; *2* — усик самки; *3* — жилкование передних крыльев; *4* — метасома; *5* — голова спереди.

frontal view broader than high in ratio 4 : 3, malar space some shorter than hight of eye; eyes black, bare; external clypeus margin straight; face with very fine smooth sculpture without pubescens, lower face provided with thin, smooth oblong elevation in the middle. Antennae inserted in the middle of the face, scape long, reaching the mid ocellus, pedicel long, equal in length with first flagellar segment, anellus very short, the first flagellar segment long, much longer, than the second which is some transverse, the 3–5 segments — square; club long, stout, almost as long, as 3 previous flagellar segments; flagellum with sparse pale pubescens.

Mesosoma a little bulging in profile, pronotal collar transverse, width to length as 3 : 1 : 1,3 times shorter than mesoscutum; scutellum as long as mesoscutum, all thoracic dorsum with fine reticulation, almost bare. Mesopleura with fine reticulation. Propodeum slightly declivous, without median furrow, with irregular fine reticulation. Legs thin with little coxae. Forewing with brown venation, marginal, postparginal and stigmal veins as 25 : 18 : 20; marginal vein thick, stout; disc with short, brown pilosity,

basal cell with distinct pilosity in the middle of the cell, costal cell with sparse pilosity; stigma large, triangular.

Metasoma with abdomen some shorter than mesosoma (50 : 55), petiolus almost square (from above), the surface of abdominal tergits smooth.

Male unknown.

Notes. *Systole tokata* Zerova et Çam, sp. n. belongs to subgenus *Systole* (*Systole*). It differs from all known species of this subgenus by longer petiolus in female and square 2–5 flagellar segments.

Systole* (*Systole*) *plana Zerova et Çam, **sp. n.**

Material. Holotype ♀, Turkey, Tokat, 11.05.1989 (H. Çam); paratype ♀, with the same label as holotype.

Female (holotype) (fig. 2, *1–5*). Body length 2,1 mm. Small species with short, flat abdomen (in dorsal view). Color : body black, antennae black, all coxae black, hind femora black with yellow tip, fore and mid femora yellow; hind tibiae dark brown, fore and mid tibiae yellow, tarsi yellow, only hind tarsi some brownish; forewing venation yellow, tip of ovipositor black.

Head from above as wide as pronotum, two times wider than long, POL to OOL as 1,8 : 0,7; temples very short, shorter as length of eye as 4 : 16. Head in frontal view

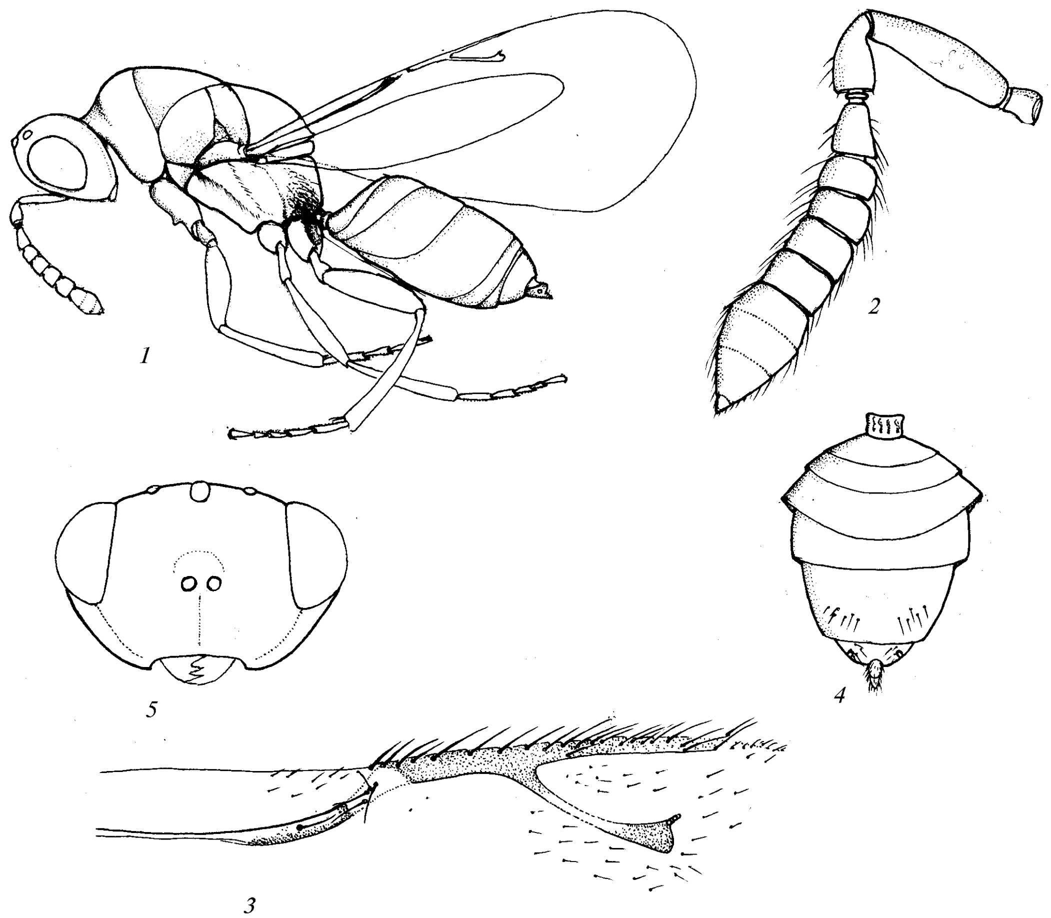


Fig. 2. *Systole* (*Systole*) *plana*: *1* — female, profile; *2* — antenna, female; *3* — forewing venation; *4* — metasoma, female; *5* — head, frontal view.

Рис. 2. *Systole* (*Systole*) *plana*: *1* — профиль самки; *2* — усик самки; *3* — жилкование передних крыльев; *4* — метасома; *5* — голова спереди.

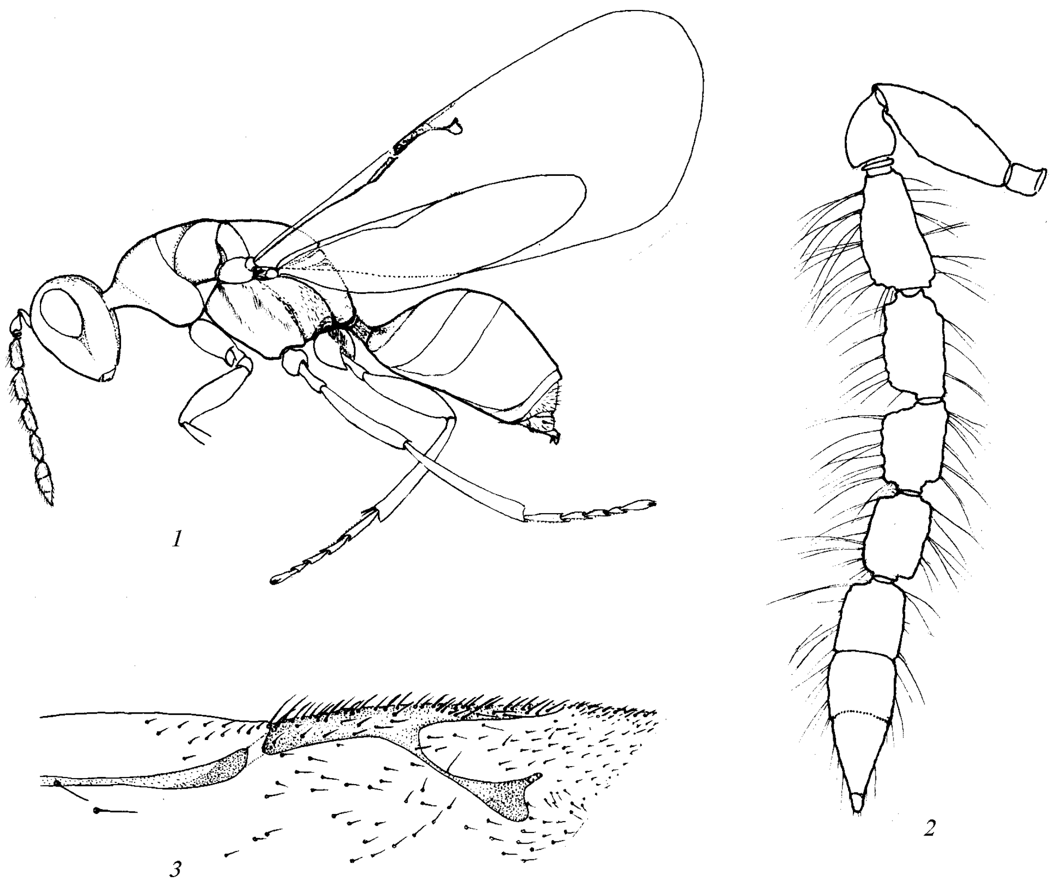


Fig. 3. *Systole* (*Systole*) *brunnicornis*, ♂: *1* — profile; *2* — forewing venation; *3* — antenna.

Рис. 3. *Systole* (*Systole*) *brunnicornis*, ♂: *1* — профиль; *2* — жилкование передних крыльев; *3* — усик.

broder than high in ratio 44 : 33; hight of eye to malar space as 8 : 12; eyes brown, bare; external clypeus margin straight; face with very smooth sculpture, lower face with some white short hairs. Antennae inserted in the middle of the face, scape stout, some widening in the middle, not reaching the mid ocellus, pedicel longer than the first flagellar segment, anellus very short, almost flat; the first flagellar segment triangular, longer than each of next segments; club stout, wider than flagellar segments flagellum with sparse pale pubescens.

Mesosoma not bulging in profile, pronotal collar very short, width to length — 4 : 1; two times shorter as mesoscutum, length of scutellum 4/5 of mesoscutum length, thoracic dorsum with very fine and shining sculpture. Mesopleura with very fine punctation. Propodeum with some irregular wrinkles. Legs with stout hind femora, fore coxa with a little tooth on anterior side. Forewing venation yellow, radial vein with long petiolus and narrow stigma, marginal, postmarginal and stigmal veins in ratio 30 : 34 : 27; basal and costal cells bare, disc of wing with sparse, short, pale pubescens.

Metasoma with abdomen, some shorter than mesosoma (40 : 35), petiolus short but distinct, abdomen flat dorsaly, all abdominal tergits with smooth shining surface.

Male unknown.

Notes. *Systole plana* Zerova et Çam, sp. n. belongs to subgenus *Systole* (*Systole*). It is near to *S. singularis* Zerova but differs by flat abdomen (dorsaly) and longer and stout first flagellar segment.

Systole* (*Systole*) *brunnicornis Zerova et Çam, 2003

Zerova, Seryogina, Çam, 2003 : 259–266.

Material. ♂, Turkey, Tokat, 16.05.1986 (H. Çam); ♂, Turkey, Tokat, 14.07.1988 (H. Çam); ♂, Turkey, Tokat, 17.07.1989 (H. Çam).

Male (fig. 3, *1–3*). Body length 1,6–2,2 mm. Head and thorax (dorsal part) with fine but distinct reticulation and white sparse pubescens.

Head, mesosoma and metasoma black, all coxae black, hind femora black in basal half and yellow — in distal, hind tibia brownish yellow, fore and mid tibiae and all tarsi — yellow; scape, pedicel and funicle dark brown, wing venation brown.

Head from above some wider than pronotum, in frontal view broader than high in ratio 43 : 30, malar space as long as hight of eye, external clypeus margin straight; lower face provided with a smoth elevation, which is some wider than by female. Antennae inserted in the middle of the face scape short and stout, not reaching the mid ocellus, pedicel short, roundish, funicle 4-segmented, the first segment the longest almost two times longer than wide in distal part, 2–4 segments some longer than wide, the 4th almost square; club long, 3-segmented the first club segment distinct remote from second; flagellum with dense short pubescens.

Mesosoma not bulging in profile, pronotal collar some shorter than mesoscutum which is equal in length with scutellum.

Propodeum with fine reticulation. Veins brown, marginal, postmarginal and radial veins in ratio 20 : 18 : 17; petiolus of stigmal vein long and thin, stigma triangular; costal cell and basal cells bare, disc of wing with brown short pilosity. Legs thin, hind coxa small.

Metasoma with some elongated abdomen; petiolus shorter than hind coxa (in profile).

Notes. The description of *Systole brunnicornis* Zerova et Çam was based on female — holotype and 4 paratypes (Zerova et al., 2003). The males, were found in the materials from Turkey collected by Dr. H. Çam in the same term as were collected the females.

In male sex *S. brunnicornis* differs from other *Systole* species by structure of club with differenciated first segment.

Zerova M. D., Seryogina L. Ya., Çam H. New species of Eurytomidae (Hymenoptera, Chalcidoidea) from Turkey // Zool. Med. Leiden. — 2003. — **77**. — P. 259–266.